

What is claimed is:

1. A monitoring apparatus capable of acquiring information by communication from at least one image forming apparatus to be monitored and communicating with  
5 a management apparatus, comprising;

an e-mail device that carries out communication with the management apparatus by e-mail;

a processing device operable when said e-mail  
10 device has received second modules for updating first modules, on which the monitoring apparatus operates, from the management apparatus by e-mail, to automatically update the first modules in operation to the second modules;

15 an information collecting device that collects version information on the first modules when said e-mail device has received a version information acquisition request from the management apparatus by e-mail; and

20 a returning device that sends the version information collected by said information collecting device to the management apparatus by return e-mail.

2. A monitoring apparatus according to claim 1, further comprising:

25 a receiving device that receives an update instruction e-mail containing at least the second modules and an install script, and an acquisition

request e-mail requesting acquisition of the version information indicative of versions of respective ones of the first modules in the monitoring apparatus and a version of the monitoring apparatus as a whole;

5        wherein said processing device activates the install script contained in the update instruction e-mail received by said receiving device, and updates the first modules in operation to the second modules contained in the update instruction e-mail received by  
10    said receiving device, and said information collecting device collects the version information in response to the acquisition request e-mail received by said receiving device, and said returning device sends the version information collected by said information  
15    collecting device to the management apparatus by return e-mail.

3.    A monitoring apparatus according to claim 1, comprising a decoding device that decodes contents of an e-mail received by said e-mail device, and wherein said  
20    processing device interprets an instruction from the management apparatus from the contents of the received e-mail decoded by said decoding device, and performs processing according to the interpreted contents of the e-mail.

25        4.    A management apparatus capable of managing a plurality of monitoring apparatuses that acquire information by communication from a plurality of image

forming apparatuses to be monitored, comprising:

an instructing device that collectively instructs the plurality of monitoring apparatuses to update first modules, on which the plurality of monitoring

5 apparatuses operate, to second modules by e-mail;

an acquisition requesting device that collectively gives a request for acquisition of version information on the first modules to the plurality of monitoring apparatuses by e-mail; and

10 an acquisition device that acquires the version information from the plurality of monitoring apparatuses as replies to e-mails for requesting acquisition of the version information sent by said acquisition requesting device.

15 5. A management apparatus according to claim 4, wherein said instructing device collectively transmits update instruction e-mails containing at least the second modules for updating the first modules of respective ones of the plurality of monitoring  
20 apparatuses and an install script to the plurality of monitoring apparatuses, said acquisition requesting device collectively transmits acquisition request e-mails for requesting acquisition of version information indicative of versions of respective ones of the modules  
25 in each of the plurality of monitoring apparatuses and a version of each of the plurality of monitoring apparatuses as a whole to the plurality of monitoring

apparatuses, and said acquisition device receives the version information from the plurality of monitoring apparatuses as replies to the acquisition request e-mails transmitted by said acquisition requesting device.

5           6.    A management apparatus according to claim 4, comprising a determining device that compares version information indicative of versions of the first modules to be taken after update of the first modules in accordance with an instruction for updating the first  
10 modules to the second modules with the version information acquired by said acquisition device to determine whether the first modules have been successfully updated.

          7.    A management apparatus according to claim 6,  
15 wherein said instructing device collectively instructs the monitoring apparatuses to update the first modules when said determining device ascertains that the modules have not been successfully updated.

          8.    A management apparatus according to claim 6,  
20 wherein the version information indicative of versions of the first modules to be taken after update of the first modules is second version information indicative of a version of each of the plurality of monitoring apparatuses as a whole, and the second version  
25 information corresponds to a combination of the first modules in each of the plurality of monitoring apparatuses.

9. A control method executed by a monitoring apparatus capable of acquiring information by communication from at least one image forming apparatus to be monitored, and communicating with a management apparatus, comprising;

a communication step of carrying out communication with the management apparatus by e-mail;

a processing step of automatically updating first modules in operation, on which the monitoring apparatus operates, to second modules for updating the first modules when the second modules is received from the management apparatus by e-mail in said communication step;

an information collecting step of collecting version information on the first modules when a version information acquisition request is received from the management apparatus by e-mail in said communication step; and

a returning step of sending the version information collected in said information collecting step to the management apparatus by return mail.

10. A control method according to claim 12, further comprising:

a receiving step of receiving an update instruction e-mail containing at least the second modules and an install script, and an acquisition request e-mail requesting acquisition of the version information

indicative of versions of respective ones of the modules in the monitoring apparatus and a version of the monitoring apparatus as a whole;

wherein said processing step comprises activating  
5 the install script contained in the update instruction e-mail received in said receiving step, and updating the first modules in operation to the second modules contained in the update instruction e-mail received in said receiving step, and said information collecting  
10 step comprises collecting the version information in response to the acquisition request e-mail received in said receiving step, and said returning step comprises sending the version information collected in said information collecting step to the management apparatus  
15 by return e-mail.

11. A control method according to claim 9, comprising a decoding step of decoding contents of an e-mail received in said communication step, and wherein said processing step comprises interpreting an  
20 instruction from the management apparatus from the contents of the received e-mail decoded in said decoding step, and performing processing according to the interpreted contents of the e-mail.

12. A control method executed by a management  
25 apparatus capable of managing a plurality of monitoring apparatuses that acquire information by communication from a plurality of image forming apparatuses to be

monitored, comprising:

an instructing step of collectively instructing the plurality of monitoring apparatuses to update first modules, on which the plurality of monitoring

5 apparatuses operate, to second modules by e-mail;

an acquisition requesting step of collectively giving a request for acquisition of version information on the first modules to the plurality of monitoring apparatuses by e-mail; and

10 an acquisition step of acquiring the version information from the plurality of monitoring apparatuses as replies to e-mails for requesting acquisition of the version information sent in said acquisition requesting step.

15 13. A control method according to claim 12, wherein said instructing step comprises collectively transmitting update instruction e-mails containing at least the second modules for updating the first modules of respective ones of the plurality of monitoring  
20 apparatuses and an install script to the plurality of monitoring apparatuses, said acquisition requesting step comprises collectively transmitting acquisition request e-mails for requesting acquisition of version information indicative of versions of respective ones of  
25 the modules in each of the plurality of monitoring apparatuses and a version of each of the plurality of monitoring apparatuses as a whole to the plurality of

monitoring apparatuses, and said acquisition step comprises receiving the version information from the plurality of monitoring apparatuses as replies to the acquisition request e-mails transmitted in said acquisition requesting step.

14. A control method according to claim 12, comprising a determining step of comparing version information indicative of versions of the first modules to be taken after update of the first modules in accordance with an instruction for updating the first modules to the second modules with the version information acquired in said acquisition step to determine whether the first modules have been successfully updated.

15. A control method according to claim 12, wherein said instructing step comprises collectively instructing the monitoring apparatuses to update the first modules when it is determined in said determining step that the first modules have not been successfully updated.

16. A control method according to claim 15, wherein the version information indicative of versions of the first modules to be taken after update of the first modules is second version information indicative of a version of each of the plurality of monitoring apparatuses as a whole, and the second version information corresponds to a combination of the first



modules in each of the plurality of monitoring apparatuses.

17. A program for causing a computer to execute a control method implemented by a monitoring apparatus  
5 capable of acquiring information by communication from at least one image forming apparatus to be monitored, and communicating with a management apparatus, the method comprising;

a communication step of carrying out communication  
10 with the management apparatus by e-mail;

a processing step of automatically updating first modules in operation, on which the monitoring apparatus operates, to second modules for updating the first  
modules when the second modules for updating the modules  
15 is received from the management apparatus by e-mail in said communication step;

an information collecting step of collecting version information on the first modules when a version information acquisition request is received from the  
20 management apparatus by e-mail in said communication step; and

a returning step of sending the version information collected in said information collecting step to the management apparatus by return mail.

25 18. A program for causing a computer to execute a control method implemented by a management apparatus capable of managing a plurality of monitoring

apparatuses that acquire information by communication from a plurality of image forming apparatuses to be monitored, the method comprising:

an instructing step of collectively instructing the  
5 plurality of monitoring apparatuses to update first modules, on which the plurality of monitoring apparatuses operate, to second modules by e-mail;

an acquisition requesting step of collectively giving a request for acquisition of version information  
10 on the first modules to the plurality of monitoring apparatuses; and

an acquisition step of acquiring the version information from the plurality of monitoring apparatuses as replies to e-mails for requesting acquisition of the  
15 version information sent in said acquisition requesting step.